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April-June 2022 Outlook: Perspective for the Lower Rio Grande Valley/Deep S. Texas Region

February 25, 2022

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NATIONAL WEATHER SERVICE

Building a Weather-Ready Nation // 1



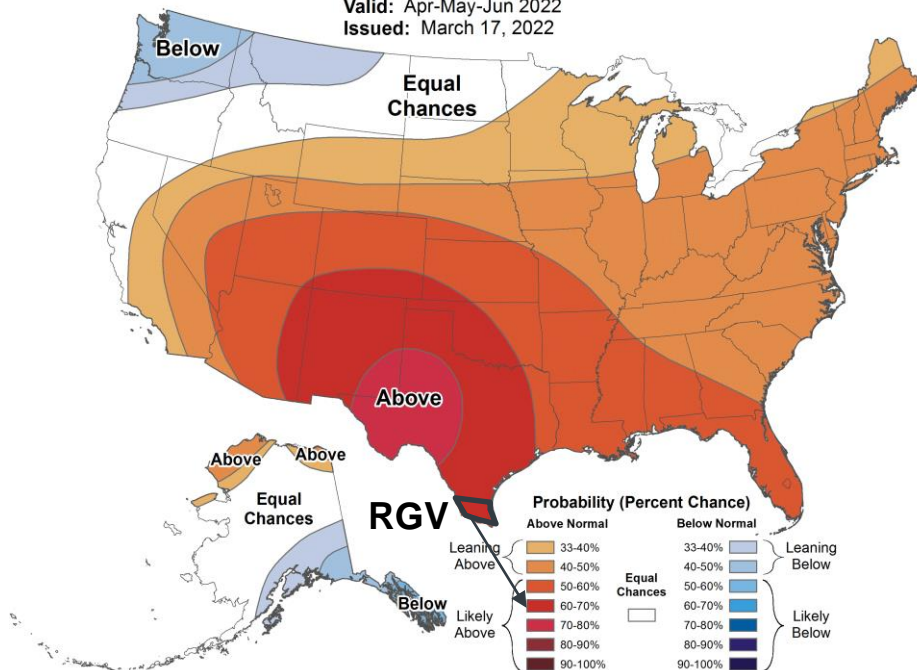
Seasonal Forecast April-June 2022 - USA



Seasonal Temperature Outlook



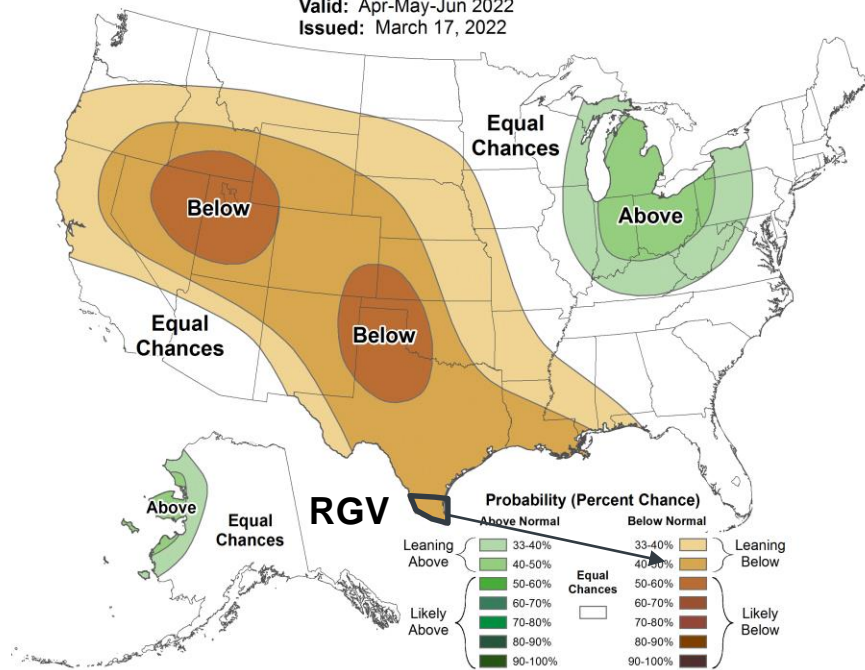
Valid: Apr-May-Jun 2022
Issued: March 17, 2022



Seasonal Precipitation Outlook



Valid: Apr-May-Jun 2022
Issued: March 17, 2022





Key Takeaways

- **Above to much above average temperatures**, and **below to much below average rainfall is forecast...**
- **Confidence is now high** on rainfall through April and **medium-high** into May, especially for the populated Valley
 - **Drought** will worsen across the Rio Grande Plains/Brush Country, and ultimately spread to parts of the Rio Grande Valley. **Extreme to Exceptional** (highest on scale) **Drought expected by April across the Rio Grande Plains and Brush Country**, with **Severe** to potentially **Extreme** drought spreading to all but the Lower Texas coast.
 - **Wildfire spread threat will peak in late March and April** and potentially continue into **May** based on fuel (grass, brush, tree) availability, “curing”/dryness, and the expected warmth and drought. Since mid February, nearly 8 thousand acres have burned mainly in Starr, Kenedy, and Brooks County.
 - **June** is a bit of a “wild card”. Based on historical precedent in springs like this, a reasonable able chance for damaging wind, excessive lightning, and **flooding** should thunderstorm lines or clusters develop or spread into the region.



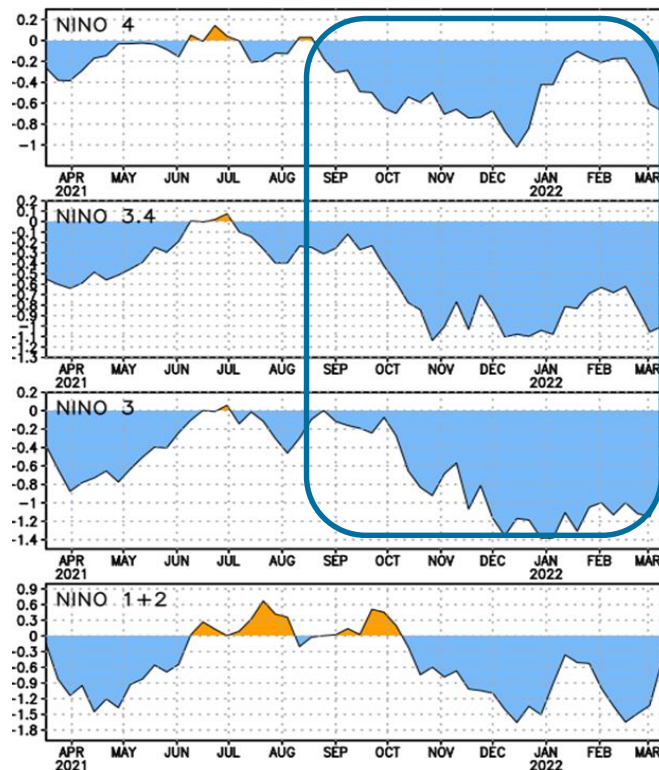


The “Why” of the Forecast:

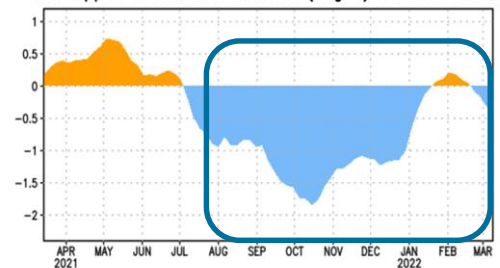
El Niño/Southern Oscillation (ENSO) (still) in La Niña Phase

Year	DJF	JFM	FMA	MAM	AMJ	MJJ	JJA	JAS	ASO	SON	OND	NDJ
2021	-1.0	-0.9	-0.8	-0.7	-0.5	-0.4	-0.4	-0.5	-0.7	-0.8	-1.0	-1.0
2022	-1.0											

- La Niña remains stubborn, and is now expected to remain the dominant signal into early
- Neutral or weak La Niña conditions are likely through summer
- The staunch spring La Niña combined with general atmospheric patterns and other “teleconnections” now favors increasingly hot and dry/drought conditions

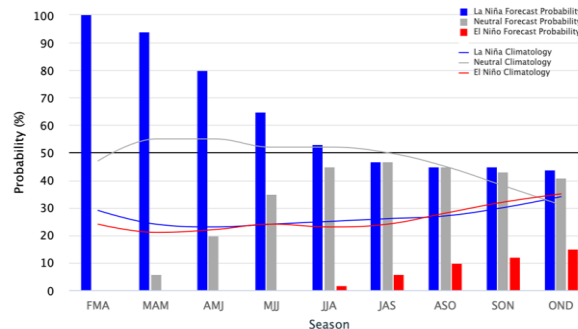


EQ. Upper–Ocean Heat Anoms. (deg C) for 180–100W



Early–March 2022 CPC/IRI Official Probabilistic ENSO Forecasts

ENSO state based on NINO3.4 SST Anomaly
Neutral ENSO: -0.5 °C to 0.5 °C

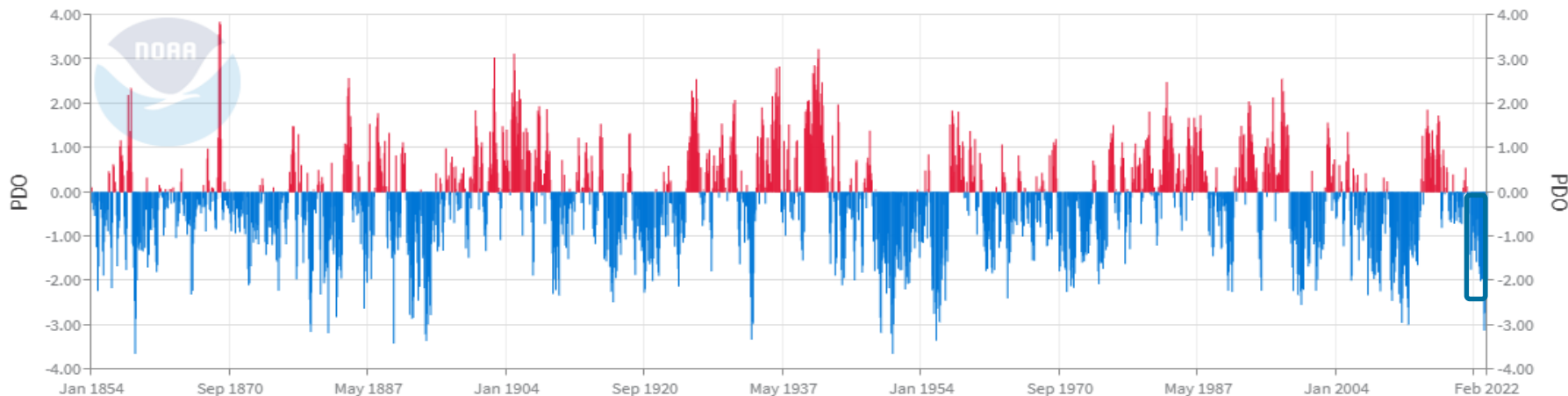


*Above right: Oceanic Niño Index. Values below -0.5 (light blue) indicate a 3-month La Niña episode.



The “Why” of the Forecast: Pacific Decadal Oscillation (PDO) in Negative Phase

Pacific Decadal Oscillation (PDO)

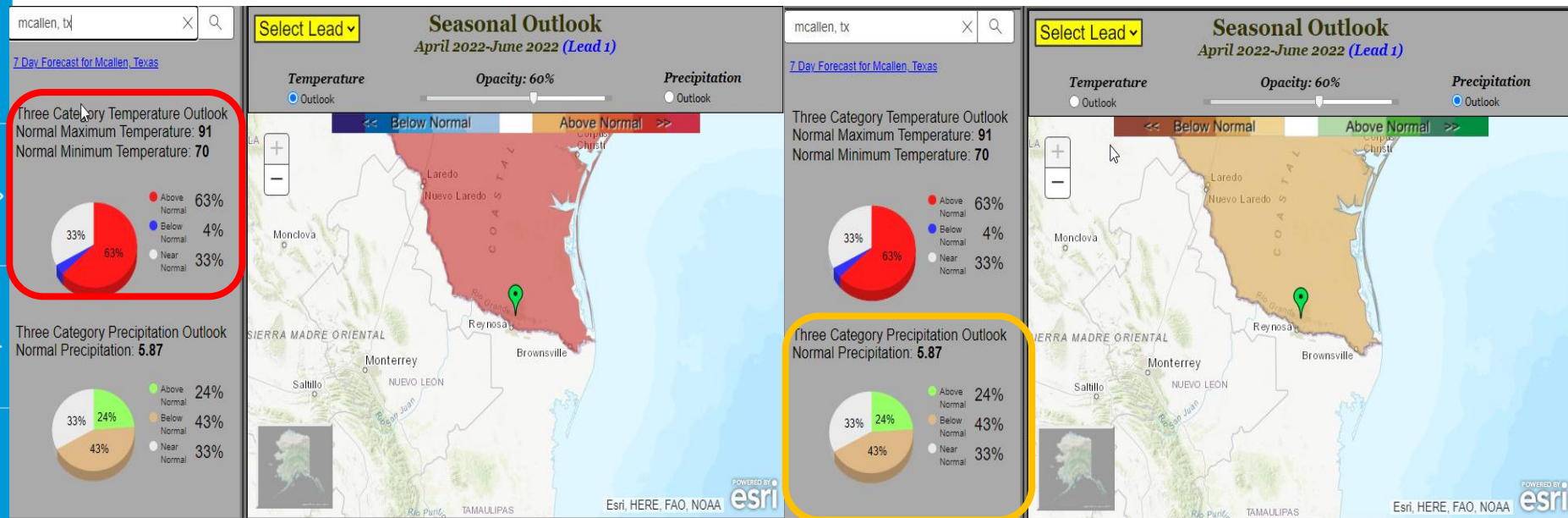


Source: <https://www.ncsl.noaa.gov/pub/data/cmb/ersst/v5/index/ersst.v5.pdo.dat>

- The 2021/2022 prolonged negative PDO is now similar to that of late 2010 through 2011. Combined with the persistent La Niña – also very similar to that from late 2010-2011 (though 2011 was a bit stronger), **confidence is building on a prolonged warm to hot and dry/very dry spring into early-mid summer 2022.**
- June into early July could still be a **wild card** as the month in recent years has featured notable thunderstorm and flood impacts.



The Spring 2022 Outlook: Rio Grande Valley (McAllen as Anchor Point)

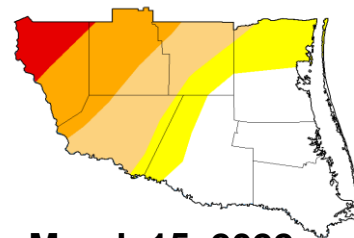
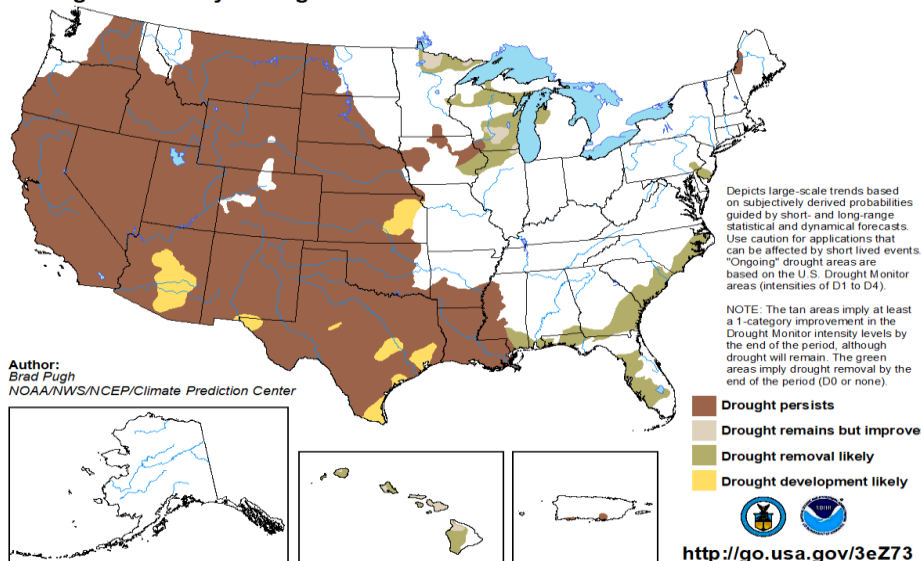


- Temperature: A 63 percent chance of above average. RGV averages (daytime): Rising from the mid 80s (early April) to the upper 90s (end of June)
- Precipitation: A 43 percent chance of below average. RGV averages: 6 to 7 inches.
- For each: A less than 5 percent chance of below (temperature) and 25 percent chance of above (precipitation).

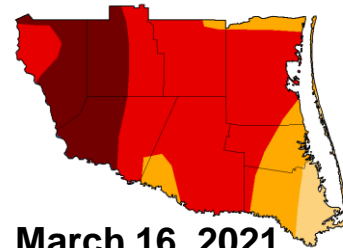
The April-June “Droughtlook”

U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period

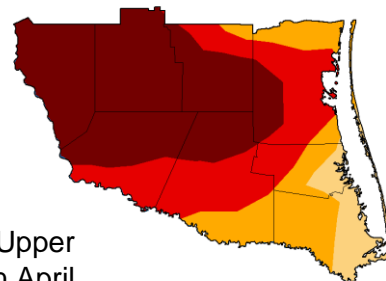
Valid for March 17 - June 30, 2022
Released March 17



March 15, 2022



March 16, 2021



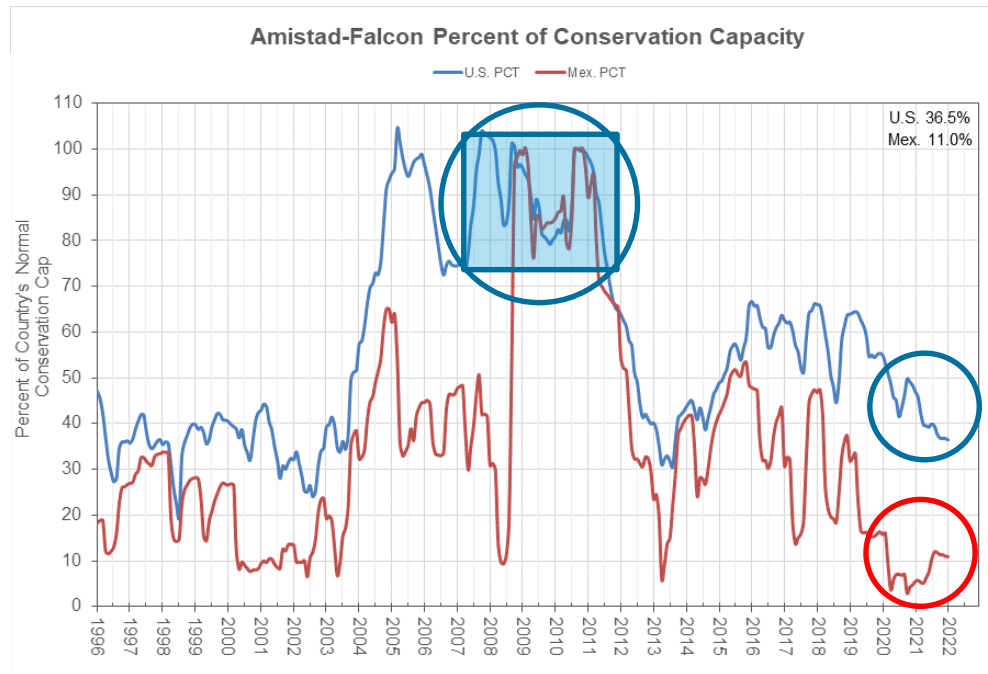
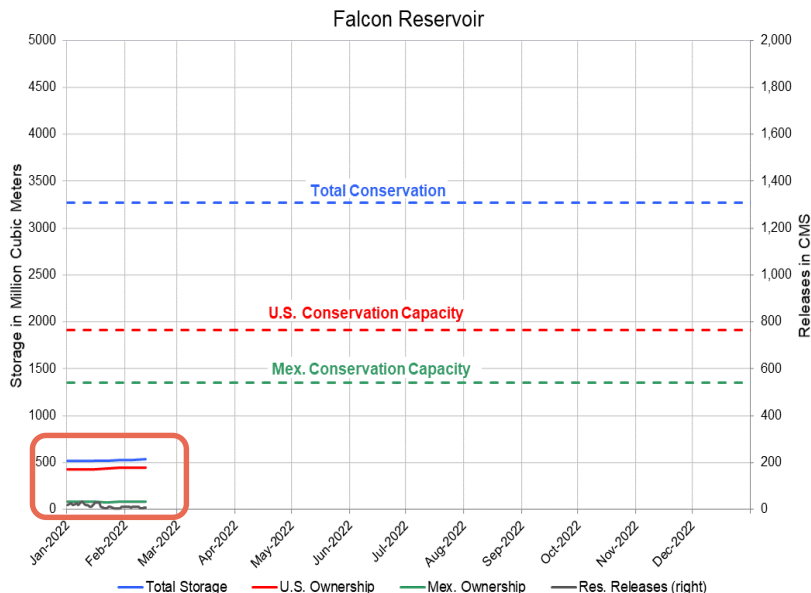
April 27, 2021

Drought Classification



- While drought is expected to worsen (Rio Grande Plains/Brush Country/Upper Valley, **it is not expected to be as intense** at the end of April 2022 as in April 2021...
- ...but the dry, warm/hot forecast especially in March and April 2022 suggest **potential for extreme to exceptional conditions to develop in these areas** by the end of April, and **severe to extreme** in most other areas in **May**

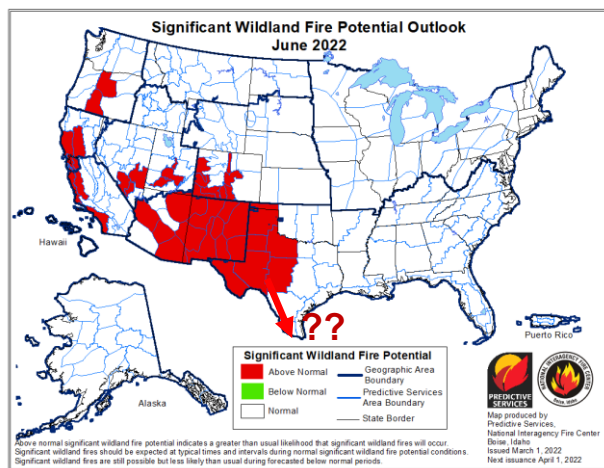
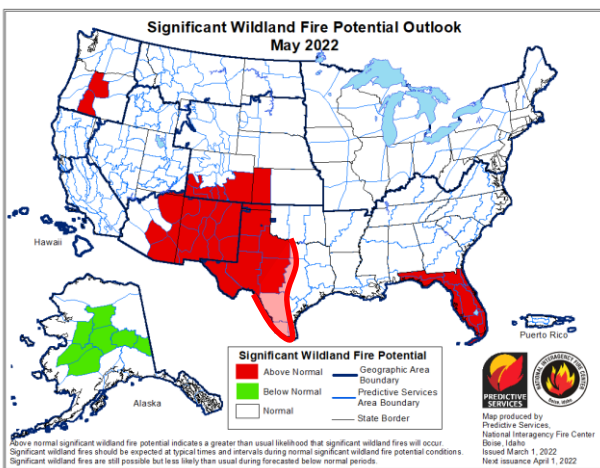
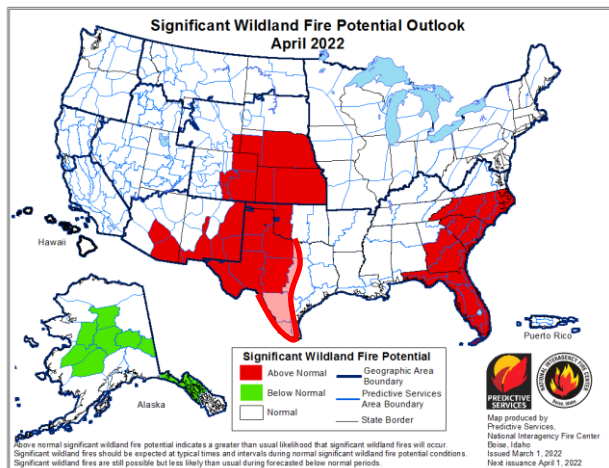
Falcon Reservoir Only a Tad Above 30-year Lows, at end of March 2022



- March 2022 total capacity, Falcon Reservoir: **16 percent (estimated)**
- March 2011 total capacity, Falcon Reservoir: **95 percent**



Wildfire Spread Potential Will Worsen Through Spring 2022

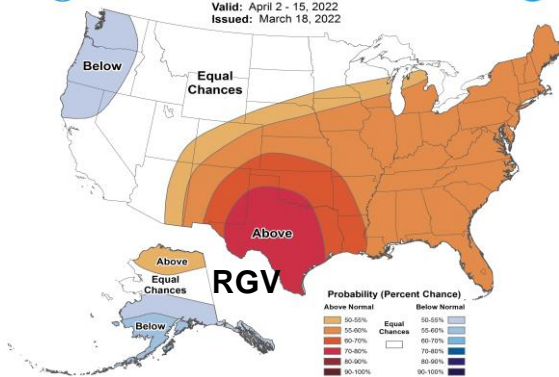


- Abundant fuels, and multiple “curing” freezes in January and February have set the table for an active to very active wildfire season through April, and possibly into May and beyond
- Updated maps by April 1st are likely to include the shaded area of South/Deep South Texas and Lower Rio Grande Valley. Look for the update [here](#).
- 1-hour fuels (grasses) will continue to dry out rapidly following “dry” spring fronts. 10-1000 hour fuels (brush and timber) are quickly becoming dry in warm to hot and dry weather through April. Favored areas remain west of IH-69C/US 281 from western Brooks/Hidalgo through Zapata County, but all areas will be under threat if temperatures are warm to hot and winds are strong, now likely in April into May.

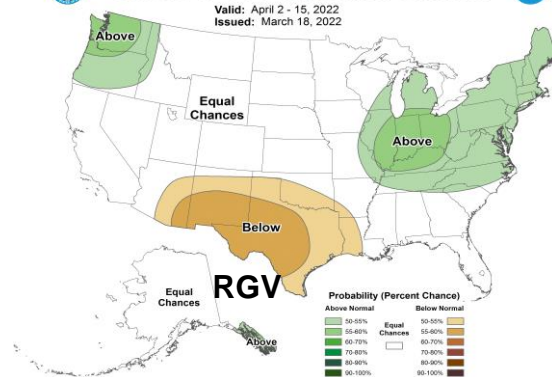


April 2022: Confidence High on Dry...and Hot

Weeks 3-4 Temperature Outlook
Valid: April 2 - 15, 2022
Issued: March 18, 2022



Weeks 3-4 Precipitation Outlook
Valid: April 2 - 15, 2022
Issued: March 18, 2022



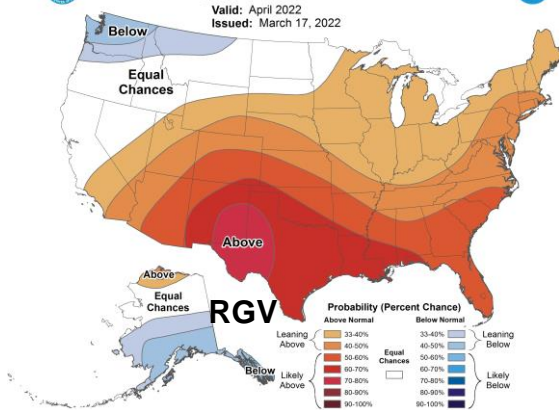
Bottom Line: April should break the streak of below average temperatures for the populated lower/mid Valley, with **dryness, drought, and wildfire spread potential growing.**

Dry weather with low/very low humidity periods is expected to begin April

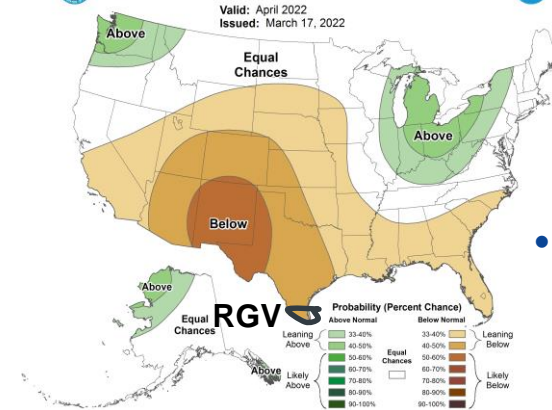
Occasional heat “spikes” will join the low humidity, with temperatures between 95-100°F along/west of IH-69C and US 281, and occasional hot temperatures will spread into the lower Valley

- Any late March greenup in the agriculturally rich Hidalgo, Willacy, Cameron region will fade to yellow and brown without rain

Monthly Temperature Outlook
Valid: April 2022
Issued: March 17, 2022

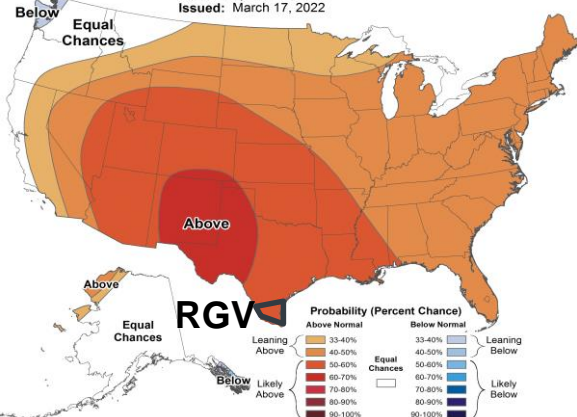


Monthly Precipitation Outlook
Valid: April 2022
Issued: March 17, 2022

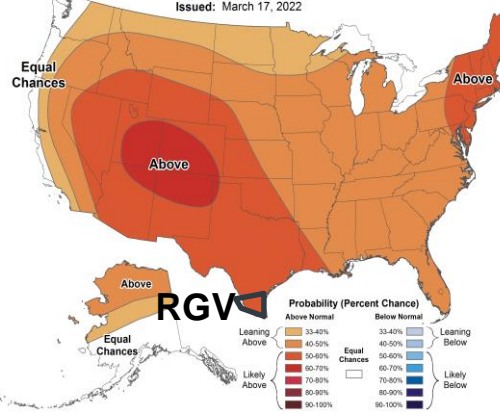


Summer 2022: Hot/Dry Continuation?

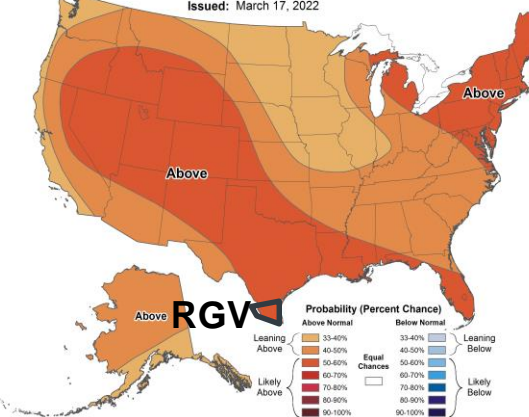
Seasonal Temperature Outlook
Valid: May-Jun-Jul 2022
Issued: March 17, 2022



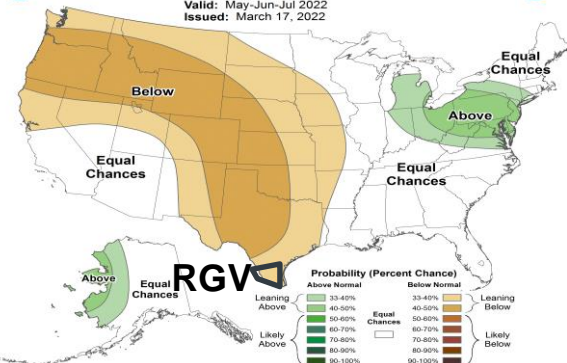
Seasonal Temperature Outlook
Valid: Jun-Jul-Aug 2022
Issued: March 17, 2022



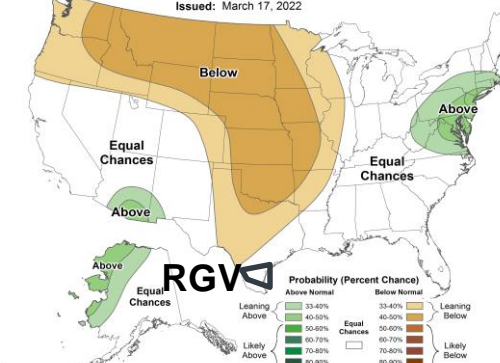
Seasonal Temperature Outlook
Valid: Jul-Aug-Sep 2022
Issued: March 17, 2022



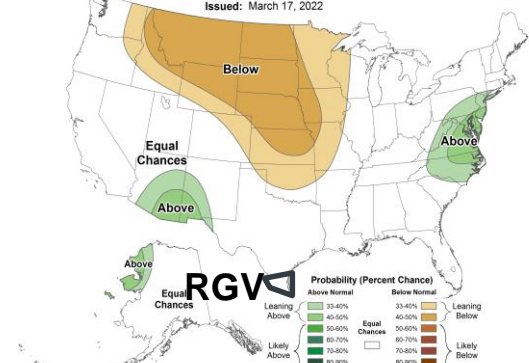
Seasonal Precipitation Outlook
Valid: May-Jun-Jul 2022
Issued: March 17, 2022



Seasonal Precipitation Outlook
Valid: Jun-Jul-Aug 2022
Issued: March 17, 2022



Seasonal Precipitation Outlook
Valid: Jul-Aug-Sep 2022
Issued: March 17, 2022



Bottom Lines

- **Wildfire growth and rapid spread is a growing concern into April and likely May** based on this forecast. Wildland managers, ranchers, and fire services should have **prevention, mitigation, and staffing strategies** in place, and enhance them as needed.
- **Drought is expected to worsen to extreme to exceptional (the highest on the 5-level scale) mainly west of IH 69/US 281.** Development along/east of IH-69C/US 281 is expected to begin in early April. A good start to the growing season (from moisture in the ground activated by March warming) will **quickly fade in April** with warmer/hotter and drier conditions that rapidly dries out the land.
- Consider activating **agriculture and municipal water plans** in case of shortages from **western Hidalgo/Brooks to Zapata**, and bring them into discussion elsewhere, just in case.
- **June** is now the “wild card” month. Continuation of **hot and rain-free** weather will spread extreme drought into the agriculturally-rich eastern Hidalgo/Willacy/western Cameron region, with a continued potential for **rapid to extreme wildfire growth**.
- A **wetter** (and less hot) month would reduce the drought and be a **continued boon to agriculture**, though significant flash flooding could occur due to intense thunderstorms, as seen in 2018-2019, and in early July 2021.
- Regardless, **heat safety measures** should be promoted for the May-June time frame.

